American Society for Testing and Materials (ASTM)

100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

ASTM D 665–98, Standard Test Method for Rust-Preventing Characteristics of Inhibited Mineral Oil in the Presence of Water 61.20–17

[CGD 95–027, 61 FR 26001, May 23, 1996, as amended by CGD 96–041, 61 FR 50728, Sept. 27, 1996; 97–057, 62 FR 51044, Sept. 30, 1997; USCG–1999–6216, 64 FR 53225, Oct. 1, 1999; USCG–1999–5151, 64 FR 67180, Dec. 1, 1999]

Subpart 61.05—Tests and Inspections of Boilers

§ 61.05–1 Scope.

The term *boiler* as used in this subpart includes power boilers subject to part 52 and heating boilers subject to part 53 of this subchapter.

[CGD 80–064, 49 FR 32193, Aug. 13, 1984]

§ 61.05–5 Preparation of boilers for inspection and test.

(a) For internal inspection, manhole and handhold plates, and washout plugs shall be removed as required by the marine inspector and the furnace and combustion chambers shall be thoroughly cooled and cleaned. Portable obstructions shall be removed as necessary for proper access.

(b) In preparing the boilers for the hydrostatic test, they shall be filled with water at not less than 70 °F. and not more than 160 °F. for watertube boilers, and not more than 100 °F. for firetube boilers. The safety valves shall be secured by means of gags or clamps.

[CGFR 68-82, 33 FR 18890, Dec. 18, 1968, as amended by CGD 95–027, 61 FR 26001, May 23, 1996]

§ 61.05–10 Boilers in service.

(a) Each boiler, including superheater, reheater, economizer, auxiliary boiler, low-pressure heating boiler, and unfired steam boiler, must be available for examination by the marine inspector at intervals specified by Table 61.05–10, and more often if necessary, to determine that the complete unit is in a safe and satisfactory condition. When a hydrostatic test is required, the marine inspector may examine all accessible parts of the boiler while it is under pressure.

(b) The owner, master, or person in charge of the vessel shall give ample notice to the cognizant Officer in Charge, Marine Inspection, so that a marine inspector may witness the tests and make the required inspections.

(c) Firetube boilers which cannot be entered or which cannot be satisfactorily examined internally, all boilers of lap seam construction and all boilers to which extensive repairs have been made or the strength of which the marine inspector has any reason to question, shall be subjected to a hydrostatic test of 1½ times the maximum allowable working pressure. All other boilers shall be subjected to a hydrostatic test of 1¼ times the maximum allowable working pressure.

(d) In applying hydrostatic pressure to boilers, arrangements shall be made to prevent main and auxiliary stop valves from being simultaneously subjected to the hydrostatic pressure on one side and steam pressure on the other side.

(e) If the marine inspector has reason to believe that the boiler has deteriorated to any appreciable extent under the bottom where it rests on saddles or foundations, he shall cause the boiler to be lifted to such position that it can be thoroughly examined, provided the examination cannot be made otherwise.

(f) The marine inspector may require any boiler to be drilled or gaged to determine actual thickness any time its safety is in doubt. At the first inspection for certification after a firetube or flue boiler has been installed for 10 years, it shall be gaged to determine the extent of deterioration. Thickness will be measured at or near the waterline, at the bottom and at such other places deemed necessary by the marine inspector. Examination may be by drilling or a nondestructive means acceptable to the marine inspector. Prior to the use of a nondestructive method of examination, the user shall demonstrate to the marine inspector that results having an accuracy within plus or minus 5 percent are consistently obtainable when using specimens similar to those to be examined on the boiler.

(g) If the thickness is found to be less than the original thickness upon which